SOUTHERN MAINE COMMUNITY COLLEGE
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Pre-Engineering

Associate in Science

Five-Semester Pathway - Academic Year 2019-2020

Semester 1	Requirement	Recommended	Prerequisites	Corequisites	Credits	My Plan
ENGR-100	Introduction to Engineering		ENGL-095		2	
ENGL-100	English Composition		ENGL-090, ENGL-095		3	
	Social Science Elective		See course prerequisites	See course corequisites	3	
MATH-140*	College Algebra		MATH-050		3	
MATH-146*	Introduction to Trigonometry		MATH-050	MATH-140	1	
Semester 2	**Requirement**	**Recommended**	**Prerequisites**	**Corequisites**	**Credits**	**My Plan**
COMM-201	Technical Writing/Communications		ENGL-100		3	
MATH-190*	Precalculus		MATH-140, MATH-146		3	
ENGL-110	Oral Communications		ENGL-090, ENGL-095		3	
ENGL-115	Introduction to Literature		ENGL-100		3	
Semester 3	**Requirement**	**Recommended**	**Prerequisites**	**Corequisites**	**Credits**	**My Plan**
CHEM-131	Chemistry for Engineers with Lab		MATH-190		4	
MATH-260	Calculus I		MATH-190		4	
PHYS-200	Physics for Engineers I with Lab		MATH-190	MATH-260	4	
Semester 4	**Requirement**	**Recommended**	**Prerequisites**	**Corequisites**	**Credits**	**My Plan**
MATH-270	Calculus II		MATH-260		4	
ENGR-216	Circuits I: Steady State Analysis		MATH-270, PHYS-250		3	
PHYS-250	Physics for Engineers II with Lab		PHYS-200, MATH-260		4	
CSCI-110	Principles of Computer Science	If pursuing Computer Engineering Option	MATH-050		4	
ENGR-120	Digital Electronics	If pursuing Electrical Engineering Option	ENGR Program Acceptance		3	
ENGR-200	Engineering Statics	If pursuing Mechanical Engineering Option	ENGR-100, PHYS-200, MATH-260		3	
Semester 5	**Requirement**	**Recommended**	**Prerequisites**	**Corequisites**	**Credits**	**My Plan**
MATH-280	Calculus III		MATH-270		4	
MATH-275	Intro to Differential Equations and Linear Algebra		MATH-270		4	
ENGR-217	Circuits II: System Dynamics with Lab	If pursuing Computer or Electrical Engineering Option	ENGR-216	COMM-201, MATH-275	4	
ENGR-250	Strength of Materials	If pursuing Mechanical Engineering Option	ENGR-200, MATH-270		3	
ENGR-230	Thermodynamics I: Laws & Properties	If pursuing Mechanical Engineering Option	MATH-270, PHYS-200		3	

**For students starting at a more advanced level in math based on placement testing, they can substitute either CSCI 110 (Electrical/Mechanical Engineering) or CSCI 160 (Computer Engineering) in the place of MATH 140 & MATH 146 if testing at the pre-calculus level or substitute a Fine Arts/Humanities elective in the place of MATH 190 if placing at the calculus level. Please note this is only available to students with upper level placement in mathematics.*

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Associate in Applied Science Curriculum Worksheet

Pre-Engineering

General Education Requirements					
COURSE CODE	**COURSE TITLE**	**PREREQUISITES**	**COREQUISITES**	**CREDITS**	**MET**
ENGL-100	English Composition	ENGL-090, ENGL-095		3	
ENGL-115	Introduction to Literature	ENGL-100		3	
MATH-140	College Algebra*	MATH-050		3	
MATH 146	Introduction to Trigonometry*	MATH-050	MATH-140	1	
MATH-190	Precalculus*	MATH-140, MATH-146		3	
CHEM-131	Chemistry for Civil, Electrical, and Mechanical Engineers	MATH-190		4	
ENGL-110	Oral Communications	ENGL-090, ENGL-095		3	
	Social Science Electives			3	
Major Required Courses					
COURSE CODE	**COURSE TITLE**	**PREREQUISITES**	**COREQUISITES**	**CREDITS**	**MET**
COMM-201	Technical Writing	ENGL-100		3	
ENGR-100	Introduction to Engineering	ENGL-095		2	
ENGR-216	Circuits I: Steady State	MATH-260, PHYS-200	MATH-270, PHYS-250	3	
MATH-260	Calculus I	MATH-190		4	
MATH-270	Calculus II	MATH-260		4	
MATH-275	Introduction to Differential Equations with Linear Algebra	MATH-270		4	
MATH-280	Calculus III	MATH-270		4	
PHYS-200	Physics for Engineers I with Lab	MATH-190	MATH-260	4	
PHYS-250	Physics for Engineers II with Lab	PHYS-200, MATH-260		4	
Computer Engineering Option					
CSCI-110	Principles of Computer Science	MATH-050		4	
ENGR-217	Circuits II: System Dynamics	ENGR-216	COMM-201, MATH-275	4	
Electrical Engineering Option					
ENGR-120	Digital Electronics	Program Acceptance		3	
ENGR-217	Circuits II: System Dynamics	ENGR-216	COMM-201, MATH-275	4	
Mechanical Engineering Option					
ENGR-200	Engineering Statics	ENGR-100, PHYS-200, MATH 260		3	
ENGR-230	Thermodynamics I	MATH-270, PHYS-200		3	
ENGR-250	Strength of Materials	ENGR-200, MATH-270		3	

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2019-2020